

CLAIMS:

1. A method for conducting perfusion studies on myocardial tissues with contrast agents, comprising the steps of:
 - transmitting ultrasound pulses into a patient and receiving ultrasound echoes of the pulses which correspond to blood in both the myocardial tissues and in the chamber;
 - determining which of the ultrasound echoes correspond to blood in the chamber;
 - and
 - creating an image which is based on only those ultrasound echoes which do not correspond to blood in the chamber.
2. The method of claim 1, wherein the step of creating an image which is based on only those ultrasound echoes which do not correspond to blood in the chamber comprises the steps of:
 - converting the received ultrasound echoes into a first set of echo pattern data signals from which blood within the chamber is determinable; and
 - converting the received ultrasound echoes into a second set of echo pattern data signals from which blood within both the chamber and myocardial tissue is determinable.
3. The method of claim 2, wherein the step of converting the received ultrasound echoes into image data which corresponds to only blood within the myocardial tissue further comprises the step of:
 - eliminating from the second data set echo pattern data signals which positionally correspond to features which produced echo pattern data signals in the first set.
4. The method of claim 2, further comprising the step of:
 - creating an image based on said first and second sets of data signals, wherein said first set of data signals is used to eliminate from the image echo pattern data signals which positionally correspond to features which produced echo pattern data signals in the first set.
5. The method of claim 4, wherein the first set of echo pattern data signals is selected from the group consisting of fundamental gray scale image data signals and harmonic gray scale image data signals, and wherein the second set of echo pattern data is derived through a method selected from the group consisting of PPI and PM.
6. The method of claim 5, wherein the second set of echo pattern data is displayed in color mode.

7. The method of claim 6, wherein color write priority is used to eliminate from the image echo pattern data signals which positionally correspond to features which produced echo pattern data signals in the first set.
8. The method of claim 6, wherein the first set of echo pattern data signals are 2-3-pulse Doppler signals.
9. The method of claim 8, wherein the RF data includes a first set of data points corresponding to a power Doppler signal and a second set of data points corresponding to a second harmonic of the power Doppler signal.
10. The method of claim 9, wherein the first set of data points corresponds essentially to only chamber blood.
11. The method of claim 9, wherein the first set of data points corresponds essentially to both chamber blood and myocardial tissue blood.
12. A software program adapted to implement the method of claim 1, said program being disposed in a tangible medium.
13. A device for conducting perfusion studies on myocardial tissues, comprising:
 - a transmitter adapted to transmit ultrasound pulses into a patient;
 - a receiver adapted to receive echoes of said ultrasound pulses which correspond to both myocardial tissue blood and chamber blood within said patient; and
 - a processor adapted to convert the received ultrasound echoes into image data which corresponds to essentially only the myocardial blood.
14. The device of claim 14, wherein said processor is adapted to eliminate from the second data set echo pattern data signals which positionally correspond to features which produced echo pattern data signals in the first set.
15. A method for conducting perfusion studies on myocardial tissues with contrast agents, comprising the steps of:
 - transmitting ultrasound pulses into a patient;
 - receiving ultrasound echoes of the pulses which correspond to blood in both the patient's myocardial tissues and chamber; and
 - converting the received ultrasound echoes into image data which corresponds to essentially only myocardial perfusion.